

Date: Friday, 9/14/2007 2:02:03 PM  
 User: Kim Johnston

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : CROSSTUBE EXTRUSION (412 AFT)
Job Number : 34691	
Estimate Number : 10030	
P.O. Number :	Part Number : D6009129
This Issue : 9/14/2007 S.O. No. :	Drawing Number : D6009 REV A
Prsht Rev. : NC	Project Number : N/A
First Issue : / / Type : LANDING GEAR	Drawing Revision : A
Previous Run : 32306	Material :
Written By :	Due Date : 1/30/2008 Qty: 26 Um: Each
Checked & Approved By : <u>7/20/09.17</u>	
Comment : Est Rev A 01.08.17 New Issue SM	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PG	PURCHASING
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Comment: PURCHASING

Issue P/O: 4611

CLO 7/09/18

(26)

a) Order as per Dwg D6009

b) Material: 3.500 x 0.625 wall 7075-T6/T6511 (WW-T-7007 or QQ-A-225/9 or QQ-A-200/11) seamless aluminum tube

c) Minimum ultimate tensile strength = 77 ksi

d) Minimum tensile yield strength = 66 ksi

e) Tolerance are per ASTM B210 (see details on Dwg D6009)

f) Material certification required

2.0	D6009129P	Crosstube Material
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Comment: Qty.: 1.0000 Each(s)/Unit Total: 26.0000 Each(s)  
 Crosstube Material

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1

Receive &amp; Inspect For Transit Damage

Ensure material certification is attached

C 4/3/11

(26)

4.0	QC6	DIMENSIONAL CHECK
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Comment: DIMENSIONAL CHECK

Ensure Material certification comply to Dwg D

S 08/03/12 (+26)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: D Date: 01/03/13  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: CROSSTUBE EXTRUSION (412 AFT)

Job Number: 34691

Part Number: D6009129

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

ul4 2008/3/14

6.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: LG

SL  
Q-m

08.03.12

(26)

7.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

(26)  
2008/03/13

Job Completion



2008/3/13

(26)

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

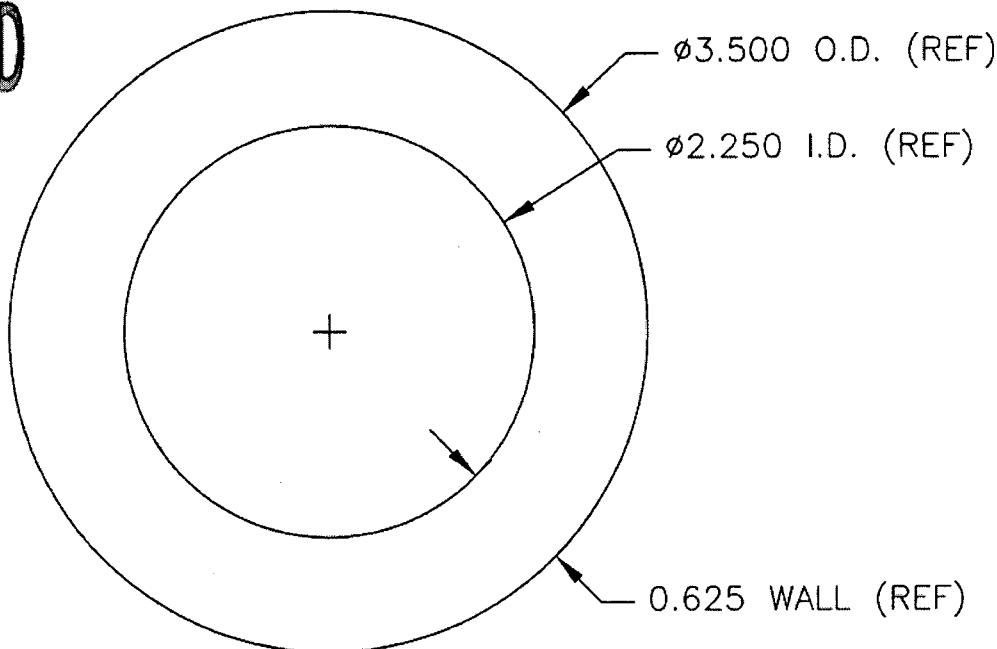
**NOTE:** Date & initial all entries



DESIGN #	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D6009	REV. A SHEET 1 OF 1
DATE 01.08.16		TITLE CROSSTUBE MATERIAL	SCALE 1:1
A	01.08.16	NEW ISSUE	

## SPECIFICATION CONTROL DRAWING

RELEASED  
01.08.17



### NOTES

- 1) D6009-XXX CROSSTUBE  
LENGTH

WHERE XXX IS LENGTH IN INCHES  
EG. 129" LONG TUBE: D6009-129

- 2) MATERIAL: 3.500 OD x 0.625 WALL 7075-T6/T6511 (WW-T-700/7 OR QQ-A-225/9 OR QQ-A-200/11) SEAMLESS ALUMINUM TUBE.  
MINIMUM ULTIMATE TENSILE STRENGTH = 77 ksi  
MINIMUM YIELD TENSILE STRENGTH = 66 ksi

- 3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS:  
O.D.:  $\pm 0.008$  MEAN ( $\pm 0.016$  INCLUDING OVALITY)  
WALL:  $\pm 0.020$  MEAN ( $\pm 0.063$  INCLUDING ECCENTRICITY)  
LENGTH: XXX  $+0.188/-0.000$   
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH

- 4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.  
5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO 34691

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ALUnna Tubes Limited  
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www.alunnatubes.com

# Approved Certificate According to EN10204:2004 3.1

For all Customer and 3rd Party approvals  
visit www.alunnatubes.com

No. C/150332/1

<b>Customer</b> DART AEROSPACE LIMITED 1270 ABERDEEN STREET HAWKESBURY ONTARIO CANADA  K6A 1K7				<b>Your Order No</b> PO00004611 <b>Your Part No</b> D6009-129P <b>Our Order No</b> 94945/7 <b>Packing Note No</b> 150332 <b>Date</b> 31/01/08 <b>Packages</b> 1 CASE				<b>Other Tests Passed</b>			
<b>Size / Description</b> SEAMLESS EXT TUBE 3.5 INS O/D 0.625 INS W/T 7075 Alloy Length - 129.02 inches				<b>Specification</b> 7075 T6 QQ-A-200/11E							

No of Pieces	Nett Weight Lbs	Tensile Test					Chemical Analysis %													H cc/ 100 gm
		Test No	0.2% Proof Stress KSI	Tensile Strength KSI	% Elongation 4 x Dia		Heat or Cast No	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Zr			Ti	
7	516	332044 LO	80.8	88.5	9		2N268	.07	.29	1.41	.03	2.39	.21	.01	5.79	.01			.03	.13
4	295	332043 LO	79.9	87.8	9		2N268	.07	.29	1.41	.03	2.39	.21	.01	5.79	.01			.03	.13
11	811	332288 LO	79.2	88.0	7		2N319	.08	.27	1.40	.04	2.39	.22	.01	5.73	.01			.02	.08
4	295	332046 LO	81.8	86.9	7		2N268	.07	.29	1.41	.03	2.39	.21	.01	5.79	.01			.03	.13

Remarks

ALLOY MELTED IN THE UNITED KINGDOM

Authorised Inspection Representative

Mr Terry Layton - For and on behalf of Alunna Tu

In accordance with the RoHS directive, ALUnna Tubes certify that the above mentioned product does not contain banned or relevant substances.

Mercury Free.

Registered in England No. 06448371  
Registered Office : Studley Road, Redditch,  
Worcestershire, B98 7HN, England  
V.A.T. Registration No. GB 923 7112 44

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